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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,451	01/03/2002	Masaya Okita	Soyu C4B	8378
7590 Flynn, Thiel, Boutell & Tanis, P.C. 2026 Rambling Road Kalamazoo, MI 49008-1699			EXAMINER KUMAR, SRILAKSHMI K	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 11/13/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/038,451

Applicant(s)

OKITA, MASAYA

Examiner

SRILAKSHMI K. KUMAR

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The following office action is in response to the amendment filed on July 10, 2008. Claims 38-41 are pending. Claim 40 has been amended.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al (US 4,795,239) in view of Majima (US 4,938,570).

As to independent claims 38 and 40, Yamashita et al teach a method for driving liquid crystal for a liquid crystal display (11) device having a liquid crystal panel sandwiching liquid crystal between two electrodes that are disposed between two polarizing plates (col. 1, lines 6-11), comprising: applying a voltage (voltage S1'-Sm') corresponding to image data (COM') between the two electrodes and thereby depicting an image on the liquid crystal panel (Fig.1); and applying an appropriate voltage (VITO, a constant voltage) between the two electrodes.

Yamashita et al do not explicitly state where the liquid crystal used in the display is a nematic liquid crystal. It is well known in the art that the liquid crystal is nematic as is the most common. Further, Majima teach using twisted nematic liquid crystal in col. 4, lines 44-45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a nematic liquid crystal as taught by Majima into the LCD system of Yamashita et al in order for proper excitation of the liquid crystal, thus producing gray levels for producing images.

Yamashita et al do not teach where the appropriate voltage is applied in each frame period, and thereby erasing the image depicted on the liquid crystal panel within the same frame period. Majima teach the application of an appropriate voltage in each frame period in col. 2, lines 49-68, and col. 5, lines 43-52. Majima teaches an erasure voltage that erases the image displayed in col. 5, lines 43-52. It would have been obvious to one of ordinary skill in the art to include where the appropriate voltage is applied in each frame period in order to have smaller time periods for the driving to improve timing and display quality, and further to include where the appropriate voltage erases the image in each frame as taught by Majima into the liquid crystal display of Yamashita et al in order for improving uniformity of the display and images.

As to dependent claims 39 and 41, limitations of claim 38, and further comprising, Majima teach wherein erasure of the image in each frame period is affected by substantially blacking the liquid crystal panel (col. 5, lines 43-52, where a full erasure is performed, thus constituting blacking the liquid crystal panel).

Response to Arguments

3. Applicant's arguments, see remarks, filed July 10, 2008, with respect to the rejection(s) of claim(s) 38-41 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yamashita in view of Majima (US 4,938,570).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SRILAKSHMI K. KUMAR whose telephone number is (571)272-7769. The examiner can normally be reached on 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Srilakshmi K Kumar/
Examiner
Art Unit 2629

SKK
November 7, 2008